

U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 IDS - 10/03/2006 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

U.S. Patent Documents				
Examiner Initials	Cite No#	Publication Number	Publication Date	Name of Patentee
DS	A3	US-20020086356	07/04/02	Tuschl, Thomas et al.
Foreign Patent Documents				
Examiner Initials	Cite No#	Publication Number	Publication Date	Name of Patentee
DS	B2	WO 02/44321	06/06/02	TUSCHL, Thomas et al.
DS	B4	WO 01/68836	09/20/01	BEACH, David
DS	B5	WO 02/094185	11/28/02	BEIGELMAN, Leonid et al.

Examiner Signature: /Dana Shin/

Date Considered: 10/23/2006

U.S. Application No. 10/604,943  
 Filing Date 10/03/2006 August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials	Cite No#	NON PATENT LITERATURE DOCUMENTS Authors, Title, Journal, Date, Year, Pages, Volume
DS	20	LEE, R. C., R. L. FEINBAUM and V. AMBROS. The C. elegans heterochronic gene lin-4 encodes small RNAs with antisense complementarity to lin-14 Cell Dec 3 1993 843-854 75
	30	WIGHTMAN, B., I. HA and G. RUVKUN. Posttranscriptional regulation of the heterochronic gene lin-14 by lin-4 mediates temporal pattern formation in C. elegans Cell Dec 3 1993 855-862 75
	40	GALLINARO, H., L. DOMENJOUR and M. JACOB. Structural study of the 5' end of a synthetic premessenger RNA from adenovirus. Evidence for a long-range exon-intron interaction J Mol Biol Jul 15 1994 205-225 240
	50	LU, C. and R. BABLANIAN. Characterization of small nontranslated polyadenylated RNAs in vaccinia virus-infected cells Proc Natl Acad Sci U S A Mar 5 1996 2037-2042 93
	60	CRAWFORD, E. D., E. P. DEANTONI, R. ETZIONI, V. C. SCHAEFER, R. M. OLSON and C. A. ROSS. Serum prostate-specific antigen and digital rectal examination for early detection of prostate cancer in a national community-based program. The Prostate Cancer Education Council Urology Jun 1996 863-869 47
	70	Engdahl HM, Hjalt TA, Wagner EG. A two unit antisense RNA cassette test system for silencing of target genes. Nucleic Acids Res. Aug 15 1997 3218-27 25
	80	SMITH, D. S., P. A. HUMPHREY and W. J. CATALONA. The early detection of prostate carcinoma with prostate specific antigen: the Washington University experience Cancer Nov 1 1997 1852-1856 80
	90	DSOUZA, M., N. LARSEN and R. OVERBEEK. Searching for patterns in genomic data Trends Genet Dec 1997 497-498 13
	100	MOSS, E. G., R. C. LEE and V. AMBROS. The cold shock domain protein LIN-28 controls developmental timing in C. elegans and is regulated by the lin-4 RNA Cell 1997 637 88
	110	FIRE, A., S. XU, M. K. MONTGOMERY, S. A. KOSTAS, S. E. DRIVER and C. C. MELLO. Potent and specific genetic interference by double-stranded RNA in Caenorhabditis elegans Nature Feb 19 1998 806-811 391
	120	WATERHOUSE, P. M., M. W. GRAHAM and M. B. WANG. Virus resistance and gene silencing in plants can be induced by simultaneous expression of sense and antisense RNA Proc Natl Acad Sci U S A Nov 10 1998 13959-13964 95
	130	NGO, H., C. TSCHUDI, K. GULL and E. ULLU. Double-stranded RNA induces mRNA degradation in Trypanosoma brucei Proc Natl Acad Sci U S A Dec 8 1998 14687-14692 95
	140	VERMA, S. and F. ECKSTEIN. Modified oligonucleotides: synthesis and strategy for users Annu Rev Biochem ***No date in Pubmed*** 1998 99-134 67
	150	WUCHTY, S., W. FONTANA, I. L. HOFACKER and P. SCHUSTER. Complete suboptimal folding of RNA and the stability of secondary structures Biopolymers Feb 1999 145-165 49
	160	MATHEWS, D. H., J. SABINA, M. ZUKER and D. H. TURNER. Expanded sequence dependence of thermodynamic parameters improves prediction of RNA secondary structure J Mol Biol May 21 1999 911-940 288
	170	CHANG, P. L. Encapsulation for somatic gene therapy Ann N Y Acad Sci Jun 18 1999 146-158 875
	180	ZHANG, M. Q. Large-scale gene expression data analysis: a new challenge to computational biologists Genome Res Aug 1999 681-688 9
	190	GRISARU, D., M. STERNFELD, A. ELDOR, D. GLICK and H. SOREQ. Structural roles of acetylcholinesterase variants in biology and pathology Eur J Biochem Sep 1999 672-686 264
DS	200	FIRE, A. RNA-triggered gene silencing Trends Genet Sep 1999 358-363 15

 Examiner Signature: /Dana Shin/

 Date Considered: 10/23/2006

U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials	Cite No#	NON PATENT LITERATURE DOCUMENTS Authors, Title, Journal, Date, Year, Pages, Volume
DS	210	TABARA, H., M. SARKISSIAN, W. G. KELLY, J. FLEENOR, A. GRISHOK, L. TIMMONS, A. FIRE and C. C. MELLO. The rde-1 gene, RNA interference, and transposon silencing in <i>C. elegans</i> Cell Oct 15 1999 123-132 99
	220	RYO, A., Y. SUZUKI, K. ICHIYAMA, T. WAKATSUKI, N. KONDOH, A. HADA, M. YAMAMOTO and N. YAMAMOTO. Serial analysis of gene expression in HIV-1-infected T cell lines FEBS Lett Nov 26 1999 182-186 462
	230	OLSEN, P. H. and V. AMBROS. The lin-4 regulatory RNA controls developmental timing in <i>Caenorhabditis elegans</i> by blocking LIN-14 protein synthesis after the initiation of translation Dev Biol Dec 15 1999 671-680 216
	240	TUSCHL, T., P. D. ZAMORE, R. LEHMANN, D. P. BARTEL and P. A. SHARP. Targeted mRNA degradation by double-stranded RNA in vitro Genes Dev Dec 15 1999 3191-3197 13
	260	REINHART, B. J., F. J. SLACK, M. BASSON, A. E. PASQUINELLI, J. C. BETTINGER, A. E. ROUGVIE, H. R. HORVITZ and G. RUVKUN. The 21-nucleotide let-7 RNA regulates developmental timing in <i>Caenorhabditis elegans</i> Nature Feb 24 2000 901-906 403
	270	PITT, J. N., J. A. SCHISA and J. R. PRIESS. P granules in the germ cells of <i>Caenorhabditis elegans</i> adults are associated with clusters of nuclear pores and contain RNA Dev Biol Mar 15 2000 315-333 219
	280	HAMMOND, S. M., E. BERNSTEIN, D. BEACH and G. J. HANNON. An RNA-directed nuclease mediates post-transcriptional gene silencing in <i>Drosophila</i> cells Nature Mar 16 2000 293-296 404
	300	SLACK, F. J., M. BASSON, Z. LIU, V. AMBROS, H. R. HORVITZ and G. RUVKUN. The lin-41 RBCC gene acts in the <i>C. elegans</i> heterochronic pathway between the let-7 regulatory RNA and the LIN-29 transcription factor Mol Cell Apr 2000 659-669 5
	310	FORTIER, E. and J. M. BELOTE. Temperature-dependent gene silencing by an expressed inverted repeat in <i>Drosophila</i> Genesis Apr 2000 240-244 26
	320	MOURRAIN, P., C. BECLIN, T. ELMAYAN, F. FEUERBACH, C. GODON, J. B. MOREL, D. JOUETTE, A. M. LACOMBE, S. NIKIC, N. PICAULT, K. REMOUE, M. SANIAL, T. A. VO and H. VAUCHERET. Arabidopsis SGS2 and SGS3 genes are required for posttranscriptional gene silencing and natural virus resistance Cell May 26 2000 533-542 101
	330	SIJEN, T. and J. M. KOOTER. Post-transcriptional gene-silencing: RNAs on the attack or on the defense? Bioessays Jun 2000 520-531 22
	340	BRENNER, S., M. JOHNSON, J. BRIDGHAM, G. GOLDA, D. H. LLOYD, D. JOHNSON, S. LUO, S. MCCURDY, M. FOY, M. EWAN, R. ROTH, D. GEORGE, S. ELETR, G. ALBRECHT, E. VERMAAS, S. R. WILLIAMS, K. MOON, T. BURCHAM, M. PALLAS, R. B. DUBRIDGE, J. KIRCHNER, K. FEARON, J. MAO and K. CORCORAN. Gene expression analysis by massively parallel signature sequencing (MPSS) on microbead arrays Nat Biotechnol Jun 2000 630-634 18
	350	RYO, A., Y. SUZUKI, M. ARAI, N. KONDOH, T. WAKATSUKI, A. HADA, M. SHUDA, K. TANAKA, C. SATO, M. YAMAMOTO and N. YAMAMOTO. Identification and characterization of differentially expressed mRNAs in HIV type 1-infected human T cells AIDS Res Hum Retroviruses Jul 1 2000 995-1005 16
	360	NILSSON, M., G. BARBANY, D. O. ANTSON, K. GERTOW and U. LANDEGREN. Enhanced detection and distinction of RNA by enzymatic probe ligation Nat Biotechnol Jul 2000 791-793 18
	370	KENT, W. J. and A. M. ZAHLER. Conservation, regulation, synteny, and introns in a large-scale <i>C. briggsae</i> - <i>C. elegans</i> genomic alignment Genome Res Aug 2000 1115-1125 10
DS	380	KENNERDELL, J. R. and R. W. CARTHEW. Heritable gene silencing in <i>Drosophila</i> using double-stranded RNA Nat Biotechnol Aug 2000 896-898 18

Examiner Signature: /Dana Shin/Date Considered: 10/23/2006

U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials		Cite No#	NON PATENT LITERATURE DOCUMENTS
			Authors, Title, Journal, Date, Year, Pages, Volume
DS		390	SMITH, N. A., S. P. SINGH, M. B. WANG, P. A. STOUTJESDIJK, A. G. GREEN and P. M. WATERHOUSE. Total silencing by intron-spliced hairpin RNAs Nature Sep 21 2000 319-320 407
		410	VOINET, O., C. LEDERER and D. C. BAULCOMBE. A viral movement protein prevents spread of the gene silencing signal in Nicotiana benthamiana Cell Sep 29 2000 157-167 103
		420	Mette MF, Aufsatz W, van der Winden J, Matzke MA, Matzke AJ. Transcriptional silencing and promoter methylation triggered by double-stranded RNA. EMBO J. Oct 2 2000 5194-201 19
		430	YANG, D., H. LU and J. W. ERICKSON. Evidence that processed small dsRNAs may mediate sequence-specific mRNA degradation during RNAi in Drosophila embryos Curr Biol Oct 5 2000 1191-1200 10
		440	ANANDALAKSHMI, R., R. MARATHE, X. GE, J. M. HERR, JR., C. MAU, A. MALLORY, G. PRUSS, L. BOWMAN and V. B. VANCE. A calmodulin-related protein that suppresses posttranscriptional gene silencing in plants Science Oct 6 2000 142-144 290
		450	FAGARD, M., S. BOUTET, J. B. MOREL, C. BELLINI and H. VAUCHERET. AGO1, QDE-2, and RDE-1 are related proteins required for post-transcriptional gene silencing in plants, quelling in fungi, and RNA interference in animals Proc Natl Acad Sci U S A Oct 10 2000 11650-11654 97
		460	PASQUINELLI, A. E., B. J. REINHART, F. SLACK, M. Q. MARTINDALE, M. I. KURODA, B. MALLER, D. C. HAYWARD, E. E. BALL, B. DEGNAN, P. MULLER, J. SPRING, A. SRINIVASAN, M. FISHMAN, J. FINNERTY, J. CORBO, M. LEVINE, P. LEAHY, E. DAVIDSON and G. RUVKUN. Conservation of the sequence and temporal expression of let-7 heterochronic regulatory RNA Nature Nov 2 2000 86-89 408
		470	LLAVE, C., K. D. KASSCHAU and J. C. CARRINGTON. Virus-encoded suppressor of posttranscriptional gene silencing targets a maintenance step in the silencing pathway Proc Natl Acad Sci U S A Nov 21 2000 13401-13406 9
		480	COGONI, C. and G. MACINO. Post-transcriptional gene silencing across kingdoms Curr Opin Genet Dev Dec 2000 638-643 10
		500	ELBASHIR, S. M., W. LENDECKEL and T. TUSCHL. RNA interference is mediated by 21- and 22-nucleotide RNAs Genes Dev Jan 15 2001 188-200 15
		510	BERNSTEIN, E., A. A. CAUDY, S. M. HAMMOND and G. J. HANNON. Role for a bidentate ribonuclease in the initiation step of RNA interference Nature Jan 18 2001 363-366 409
		520	VAUCHERET, H. and M. FAGARD. Transcriptional gene silencing in plants: targets, inducers and regulators Trends Genet Jan 2001 29-35 17
		540	THOMAS, C. L., L. JONES, D. C. BAULCOMBE and A. J. MAULE. Size constraints for targeting post-transcriptional gene silencing and for RNA-directed methylation in Nicotiana benthamiana using a potato virus X vector Plant J Feb 2001 417-425 25
		550	GALYAM, N., D. GRISARU, M. GRIFMAN, N. MELAMED-BOOK, F. ECKSTEIN, S. SEIDMAN, A. ELDOR and H. SOREQ. Complex host cell responses to antisense suppression of ACHE gene expression Antisense Nucleic Acid Drug Dev Feb 2001 51-57 11
		560	SHARP, P. A. RNA interference-2001 Genes Dev Mar 1 2001 485-490 15
		570	MALLORY, A. C., L. ELY, T. H. SMITH, R. MARATHE, R. ANANDALAKSHMI, M. FAGARD, H. VAUCHERET, G. PRUSS, L. BOWMAN and V. B. VANCE. HC-Pro suppression of transgene silencing eliminates the small RNAs but not transgene methylation or the mobile signal Plant Cell Mar 2001 571-583 13
		590	MATZKE, M. A., A. J. MATZKE, G. J. PRUSS and V. B. VANCE. RNA-based silencing strategies in plants Curr Opin Genet Dev Apr 2001 221-227 11
DS		600	SCHISA, J. A., J. N. PITT and J. R. PRIESS. Analysis of RNA associated with P granules in germ cells of C. elegans adults Development Apr 2001 1287-1298 128

Examiner Signature: /Dana Shin/Date Considered: 10/23/2006

U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials		Cite No#		NON PATENT LITERATURE DOCUMENTS
Authors, Title, Journal, Date, Year, Pages, Volume				
DS		610		DI SERIO, F., H. SCHOB, A. IGLESIAS, C. TARINA, E. BOULDOIRES and F. MEINS, JR. Sense- and antisense-mediated gene silencing in tobacco is inhibited by the same viral suppressors and is associated with accumulation of small RNAs Proc Natl Acad Sci U S A May 22 2001 6506-6510 98
		620		ELBASHIR, S. M., J. HARBORTH, W. LENDECKEL, A. YALCIN, K. WEBER and T. TUSCHL. Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells Nature May 24 2001 494-498 411
		630		PICCIN, A., A. SALAMEH, C. BENNA, F. SANDRELLI, G. MAZZOTTA, M. ZORDAN, E. ROSATO, C. P. KYRIACOU and R. COSTA. Efficient and heritable functional knock-out of an adult phenotype in Drosophila using a GAL4-driven hairpin RNA incorporating a heterologous spacer Nucleic Acids Res Jun 15 2001 E55-55 29
		640		VANCE, V. and H. VAUCHERET. RNA silencing in plants--defense and counterdefense Science Jun 22 2001 2277-2280 292
		650		ARGAMAN, L., R. HERSHBERG, J. VOGEL, G. BEJERANO, E. G. WAGNER, H. MARGALIT and S. ALTUVIA. Novel small RNA-encoding genes in the intergenic regions of Escherichia coli Curr Biol Jun 26 2001 941-950 11
		660		GRISHOK, A., A. E. PASQUINELLI, D. CONTE, N. LI, S. PARRISH, I. HA, D. L. BAILLIE, A. FIRE, G. RUVKUN and C. C. MELLO. Genes and mechanisms related to RNA interference regulate expression of the small temporal RNAs that control C. elegans developmental timing Cell Jul 13 2001 23-34 106
		670		HUTVAGNER, G., J. MCLACHLAN, A. E. PASQUINELLI, E. BALINT, T. TUSCHL and P. D. ZAMORE. A cellular function for the RNA-interference enzyme Dicer in the maturation of the let-7 small temporal RNA Science Aug 3 2001 834-838 293
		680		HAMMOND, S. M., S. BOETTCHER, A. A. CAUDY, R. KOBAYASHI and G. J. HANNON. Argonaute2, a link between genetic and biochemical analyses of RNAi Science Aug 10 2001 1146-1150 293
		700		VAUCHERET, H., C. BECLIN and M. FAGARD. Post-transcriptional gene silencing in plants J Cell Sci Sep 2001 3083-3091 114
		710		WESLEY, S. V., C. A. HELLIWELL, N. A. SMITH, M. B. WANG, D. T. ROUSE, Q. LIU, P. S. GOODING, S. P. SINGH, D. ABBOTT, P. A. STOUTJESDIJK, S. P. ROBINSON, A. P. GLEAVE, A. G. GREEN and P. M. WATERHOUSE. Construct design for efficient, effective and high-throughput gene silencing in plants Plant J Sep 2001 581-590 27
		720		MATTICK, J. S. and M. J. GAGEN. The evolution of controlled multitasked gene networks: the role of introns and other noncoding RNAs in the development of complex organisms Mol Biol Evol Sep 2001 1611-1630 18
		730		CARTER, R. J., I. DUBCHAK and S. R. HOLBROOK. A computational approach to identify genes for functional RNAs in genomic sequences Nucleic Acids Res Oct 1 2001 3928-3938 29
		740		MOSS, E. G. RNA interference: it's a small RNA world Curr Biol Oct 2 2001 R772-775 11
		750		KETTING, R. F., S. E. FISCHER, E. BERNSTEIN, T. SIJEN, G. J. HANNON and R. H. PLASTERK. Dicer functions in RNA interference and in synthesis of small RNA involved in developmental timing in C. elegans Genes Dev Oct 15 2001 2654-2659 15
		760		RUVKUN, G. Molecular biology. Glimpses of a tiny RNA world Science Oct 26 2001 797-799 294
		770		LEE, R. C. and V. AMBROS. An extensive class of small RNAs in Caenorhabditis elegans Science Oct 26 2001 862-864 294
DS		780		LAU, N. C., L. P. LIM, E. G. WEINSTEIN and D. P. BARTEL. An abundant class of tiny RNAs with probable regulatory roles in Caenorhabditis elegans Science Oct 26 2001 858-862 294

Examiner Signature: /Dana Shin/

Date Considered: 10/23/2006

U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner		NON PATENT LITERATURE DOCUMENTS	
Initials	Cite No#	Authors, Title, Journal, Date, Year, Pages, Volume	
DS	790	LAGOS-QUINTANA, M., R. RAUHUT, W. LENDECKEL and T. TUSCHL. Identification of novel genes coding for small expressed RNAs Science Oct 26 2001 853-858 294	
	820	ITAYA, A., A. FOLIMONOV, Y. MATSUDA, R. S. NELSON and B. DING. Potato spindle tuber viroid as inducer of RNA silencing in infected tomato Mol Plant Microbe Interact Nov 2001 1332-1334 14	
	830	MATTICK, J. S. Non-coding RNAs: the architects of eukaryotic complexity EMBO Rep Nov 2001 986-991 2	
	840	ELBASHIR, S. M., J. MARTINEZ, A. PATKANIOWSKA, W. LENDECKEL and T. TUSCHL. Functional anatomy of siRNAs for mediating efficient RNAi in Drosophila melanogaster embryo lysate Embo J Dec 3 2001 6877-6888 20	
	850	AMBROS, V. microRNAs: tiny regulators with great potential Cell Dec 28 2001 823-826 107	
	860	BLASZCZYK, J., J. E. TROPEA, M. BUBUNENKO, K. M. ROUTZAHN, D. S. WAUGH, D. L. COURT and X. JI. Crystallographic and modeling studies of RNase III suggest a mechanism for double-stranded RNA cleavage Structure Dec 2001 1225-1236 9	
	870	CRETE, P., S. LEUENBERGER, V. A. IGLESIAS, V. SUAREZ, H. SCHOB, H. HOLTORF, S. VAN EEDEN and F. MEINS. Graft transmission of induced and spontaneous post-transcriptional silencing of chitinase genes Plant J Dec 2001 493-501 28	
	880	SMALLRIDGE, R. A small fortune Nat Rev Mol Cell Biol Dec 2001 867 2	
	890	EDDY, S. R. Non-coding RNA genes and the modern RNA world Nat Rev Genet Dec 2001 919-929 2	
	900	LU, C. M. miRNA bead detection Genaco Biomedical Products PHS 398 2001 1	
	910	MATZKE, M., A. J. MATZKE and J. M. KOOTER. RNA: guiding gene silencing 2001 1080 293	
	920	GROSSHANS, H. and F. J. SLACK. Micro-RNAs: small is plentiful J Cell Biol Jan 7 2002 17-21 156	
	930	MESHORER, E., C. ERB, R. GAZIT, L. PAVLOVSKY, D. KAUFER, A. FRIEDMAN, D. GLICK, N. BEN-ARIE and H. SOREQ. Alternative splicing and neuritic mRNA translocation under long-term neuronal hypersensitivity Science Jan 18 2002 508-512 295	
	940	PADDISON, P. J., A. A. CAUDY and G. J. HANNON. Stable suppression of gene expression by RNAi in mammalian cells Proc Natl Acad Sci U S A Feb 5 2002 1443-1448 99	
	950	MOSS, E. G. MicroRNAs: hidden in the genome Curr Biol Feb 19 2002 R138-140 12	
	960	BANERJEE, D. and F. SLACK. Control of developmental timing by small temporal RNAs: a paradigm for RNA-mediated regulation of gene expression Bioessays Feb 2002 119-129 24	
	970	ELBASHIR, S. M., J. HARBORTH, K. WEBER and T. TUSCHL. Analysis of gene function in somatic mammalian cells using small interfering RNAs Methods Feb 2002 199-213 26	
	980	HAN, Y. and D. GRIERSON. Relationship between small antisense RNAs and aberrant RNAs associated with sense transgene mediated gene silencing in tomato Plant J Feb 2002 509-519 29	
	990	NICHOLSON, R. H. and A. W. NICHOLSON. Molecular characterization of a mouse cDNA encoding Dicer, a ribonuclease III ortholog involved in RNA interference Mamm Genome Feb 2002 67-73 13	
	1000	PUERTA-FERNANDEZ, E., A. BARROSO-DELJESUS and A. BERZAL-HERRANZ. Anchoring hairpin ribozymes to long target RNAs by loop-loop RNA interactions Antisense Nucleic Acid Drug Dev Feb 2002 1-9 12	
DS	1010	GIORDANO, E., R. RENDINA, I. PELUSO and M. FURIA. RNAi triggered by symmetrically transcribed transgenes in Drosophila melanogaster Genetics Feb 2002 637-648 160	

/Dana Shin/

10/23/2006

Examiner Signature: \_\_\_\_\_

Date Considered: \_\_\_\_\_

U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials	Cite No#	NON PATENT LITERATURE DOCUMENTS Authors, Title, Journal, Date, Year, Pages, Volume
DS	1020	MARTENS, H., J. NOVOTNY, J. OBERSTRASS, T. L. STECK, P. POSTLETHWAIT and W. NELLEN. RNAi in Dictyostelium: the role of RNA-directed RNA polymerases and double-stranded RNase Mol Biol Cell Feb 2002 445-453 13
	1030	MOURELATOS, Z., J. DOSTIE, S. PAUSHKIN, A. SHARMA, B. CHARROUX, L. ABEL, J. RAPPSILBER, M. MANN and G. DREYFUSS. miRNPs: a novel class of ribonucleoproteins containing numerous microRNAs Genes Dev Mar 15 2002 720-728 16
	1040	SEGGERSON, K., L. TANG and E. G. MOSS. Two genetic circuits repress the Caenorhabditis elegans heterochronic gene lin-28 after translation initiation Dev Biol Mar 15 2002 215-225 243
	1050	MOREL, J. B., C. GODON, P. MOURRAIN, C. BECLIN, S. BOUTET, F. FEUERBACH, F. PROUX and H. VAUCHERET. Fertile hypomorphic ARGONAUTE (ago1) mutants impaired in post-transcriptional gene silencing and virus resistance Plant Cell Mar 2002 629-639 14
	1060	CATALANOTTO, C., G. AZZALIN, G. MACINO and C. COGONI. Involvement of small RNAs and role of the qde genes in the gene silencing pathway in Neurospora Genes Dev Apr 1 2002 790-795 16
	1070	BOUTLA, A., K. KALANTIDIS, N. TAVERNARAKIS, M. TSAGRIS and M. TABLER. Induction of RNA interference in Caenorhabditis elegans by RNAs derived from plants exhibiting post-transcriptional gene silencing Nucleic Acids Res Apr 1 2002 1688-1694 30
	1080	PASQUINELLI, A. E. and G. RUVKUN. Control of developmental timing by micrornas and their targets Annu Rev Cell Dev Biol Epub 2002 Apr 2. 2002 495-513 18
	1090	PADDISON, P. J., A. A. CAUDY, E. BERNSTEIN, G. J. HANNON and D. S. CONKLIN. Short hairpin RNAs (shRNAs) induce sequence-specific silencing in mammalian cells Genes Dev Apr 15 2002 948-958 16
	1100	BECLIN, C., S. BOUTET, P. WATERHOUSE and H. VAUCHERET. A branched pathway for transgene-induced RNA silencing in plants Curr Biol Apr 16 2002 684-688 12
	1110	EDDY, S. R. Computational genomics of noncoding RNA genes Cell Apr 19 2002 137-140 109
	1120	LAGOS-QUINTANA, M., R. RAUHUT, A. YALCIN, J. MEYER, W. LENDECKEL and T. TUSCHL. Identification of tissue-specific microRNAs from mouse Curr Biol Apr 30 2002 735-739 12
	1130	KENT, W. J. BLAT--the BLAST-like alignment tool Genome Res Apr 2002 656-664 12
	1140	HUTVAGNER, G. and P. D. ZAMORE. RNAi: nature abhors a double-strand Curr Opin Genet Dev Apr 2002 225-232 12
	1150	NILSSON, M., J. BANER, M. MENDEL-HARTVIG, F. DAHL, D. O. ANTSON, M. GULLBERG and U. LANDEGREN. Making ends meet in genetic analysis using padlock probes Hum Mutat Apr 2002 410-415 19
	1160	PASQUINELLI, A. E. MicroRNAs: deviants no longer Trends Genet Apr 2002 171-173 18
	1170	LAI, E. C. Micro RNAs are complementary to 3' UTR sequence motifs that mediate negative post-transcriptional regulation Nat Genet Apr 2002 363-364 30
	1180	SCHWARZ, D. S. and P. D. ZAMORE. Why do miRNAs live in the miRNP? Genes Dev May 1 2002 1025-1031 16
	1190	BRANTL, S. Antisense-RNA regulation and RNA interference Biochim Biophys Acta May 3 2002 15-25 1575
	1200	LI, H., W. X. LI and S. W. DING. Induction and suppression of RNA silencing by an animal virus Science May 17 2002 1319-1321 296
DS	1210	ZAMORE, P. D. Ancient pathways programmed by small RNAs Science May 17 2002 1265-1269 296

Examiner Signature: /Dana Shin/

Date Considered: 10/23/2006



U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials	Cite No#	NON PATENT LITERATURE DOCUMENTS Authors, Title, Journal, Date, Year, Pages, Volume
DS	1220	CHEN, S., E. A. LESNIK, T. A. HALL, R. SAMPATH, R. H. GRIFFEY, D. J. ECKER and L. B. BLYN. A bioinformatics based approach to discover small RNA genes in the Escherichia coli genome Biosystems Mar-May 2002 157-177 65
	1230	LEE, N. S., T. DOHJIMA, G. BAUER, H. LI, M. J. LI, A. EHSANI, P. SALVATERRA and J. ROSSI. Expression of small interfering RNAs targeted against HIV-1 rev transcripts in human cells Nat Biotechnol May 2002 500-505 20
	1240	DRAGHICI, S. Statistical intelligence: effective analysis of high-density microarray data Drug Discov Today Jun 1 2002 S55-63 7
	1250	SILHAVY, D., A. MOLNAR, A. LUCIOLI, G. SZITTYA, C. HORNYIK, M. TAVAZZA and J. BURGYAN. A viral protein suppresses RNA silencing and binds silencing-generated, 21- to 25-nucleotide double-stranded RNAs Embo J Jun 17 2002 3070-3080 21
	1260	AYASH-RASHKOVSKY, M., Z. WEISMAN, J. DIVELEY, R. B. MOSS, Z. BENTWICH and G. BORKOW. Generation of Th1 immune responses to inactivated, gp120-depleted HIV-1 in mice with a dominant Th2 biased immune profile via immunostimulatory [correction of imunostimulatory] oligonucleotides--relevance to AIDS vaccines in developing countries Vaccine Jun 21 2002 2684-2692 20
	1270	TABARA, H., E. YIGIT, H. SIOMI and C. C. MELLO. The dsRNA binding protein RDE-4 interacts with RDE-1, DCR-1, and a DEXH-box helicase to direct RNAi in C. elegans Cell Jun 28 2002 861-871 109
	1280	BETTENCOURT, R., O. TERENIUS and I. FAYE. Hemolin gene silencing by ds-RNA injected into Cecropia pupae is lethal to next generation embryos Insect Mol Biol Jun 2002 267-271 11
	1290	HOOPER, N. M. and A. J. TURNER. The search for alpha-secretase and its potential as a therapeutic approach to Alzheimer s disease Curr Med Chem Jun 2002 1107-1119 9
	1300	LIU, Q., S. SINGH and A. GREEN. High-oleic and high-stearic cottonseed oils: nutritionally improved cooking oils developed using gene silencing J Am Coll Nutr Jun 2002 205S-211S 21
	1310	ZENG, Y., E. J. WAGNER and B. R. CULLEN. Both natural and designed micro RNAs can inhibit the expression of cognate mRNAs when expressed in human cells Mol Cell Jun 2002 1327-1333 9
	1320	MCMANUS, M. T., C. P. PETERSEN, B. B. HAINES, J. CHEN and P. A. SHARP. Gene silencing using micro-RNA designed hairpins Rna Jun 2002 842-850 8
	1330	REINHART, B. J., E. G. WEINSTEIN, M. W. RHOADES, B. BARTEL and D. P. BARTEL. MicroRNAs in plants Genes Dev Jul 1 2002 1616-1626 16
	1340	MCCAFFREY, A. P., L. MEUSE, T. T. PHAM, D. S. CONKLIN, G. J. HANNON and M. A. KAY. RNA interference in adult mice Nature Jul 4 2002 38-39 418
	1350	HANNON, G. J. RNA interference Nature Jul 11 2002 244-251 418
	1360	DENNIS, C. The brave new world of RNA Nature Jul 11 2002 122-124 418
	1370	JACQUE, J. M., K. TRIQUES and M. STEVENSON. Modulation of HIV-1 replication by RNA interference Nature Jul 25 2002 435-438 418
	1380	CULLEN, B. R. RNA interference: antiviral defense and genetic tool Nat Immunol Jul 2002 597-599 3
	1390	MA, C. and A. MITRA. Intrinsic direct repeats generate consistent post-transcriptional gene silencing in tobacco Plant J Jul 2002 37-49 31
DS	1400	NOVINA, C. D., M. F. MURRAY, D. M. DYKXHOORN, P. J. BERESFORD, J. RIESS, S. K. LEE, R. G. COLLMAN, J. LIEBERMAN, P. SHANKAR and P. A. SHARP. siRNA-directed inhibition of HIV-1 infection Nat Med Jul 2002 681-686 8

Examiner Signature: /Dana Shin/

Date Considered: 10/23/2006



U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials		Cite No#	NON PATENT LITERATURE DOCUMENTS Authors, Title, Journal, Date, Year, Pages, Volume
DS		1410	POMERANTZ, R. J. RNA interference meets HIV-1: will silence be golden? Nat Med Jul 2002 659-660 8
		1420	ZENG, Y. and B. R. CULLEN. RNA interference in human cells is restricted to the cytoplasm Rna Jul 2002 855-860 8
		1430	XIANG, C. C., O. A. KOZHICH, M. CHEN, J. M. INMAN, Q. N. PHAN, Y. CHEN and M. J. BROWNSTEIN. Amine-modified random primers to label probes for DNA microarrays Nat Biotechnol Jul 2002 738-742 20
		1440	LLAVE, C., K. D. KASSCHAU, M. A. RECTOR and J. C. CARRINGTON. Endogenous and silencing-associated small RNAs in plants Plant Cell Jul 2002 1605-1619 14
		1450	RHOADES, M. W., B. J. REINHART, L. P. LIM, C. B. BURGE, B. BARTEL and D. P. BARTEL. Prediction of plant microRNA targets Cell Aug 23 2002 513-520 110
		1460	HIPFNER, D. R., K. WEIGMANN and S. M. COHEN. The bantam gene regulates Drosophila growth Genetics Aug 2002 1527-1537 161
		1470	LIU, Q., S. P. SINGH and A. G. GREEN. High-stearic and High-oleic cottonseed oils produced by hairpin RNA-mediated post-transcriptional gene silencing Plant Physiol Aug 2002 1732-1743 129
		1480	STOUTJESDIJK, P. A., S. P. SINGH, Q. LIU, C. J. HURLSTONE, P. A. WATERHOUSE and A. G. GREEN. hpRNA-mediated targeting of the Arabidopsis FAD2 gene gives highly efficient and stable silencing Plant Physiol Aug 2002 1723-1731 129
		1490	SUZUMA, S., S. ASARI, K. BUNAI, K. YOSHINO, Y. ANDO, H. KAKESHITA, M. FUJITA, K. NAKAMURA and K. YAMANE. Identification and characterization of novel small RNAs in the aspS-yrvM intergenic region of the Bacillus subtilis genome Microbiology Aug 2002 2591-2598 148
		1500	MILLIGAN, L., T. FORNE, E. ANTOINE, M. WEBER, B. HEMONNOT, L. DANDOLO, C. BRUNEL and G. CATHALA. Turnover of primary transcripts is a major step in the regulation of mouse H19 gene expression EMBO Rep Aug 2002 774-779 3
		1510	HAMILTON, A., O. VOINET, L. CHAPPELL and D. BAULCOMBE. Two classes of short interfering RNA in RNA silencing Embo J Sep 2 2002 4671-4679 21
		1520	LEE, Y., K. JEON, J. T. LEE, S. KIM and V. N. KIM. MicroRNA maturation: stepwise processing and subcellular localization Embo J Sep 2 2002 4663-4670 21
		1530	KLAHRE, U., P. CRETE, S. A. LEUENBERGER, V. A. IGLESIAS and F. MEINS, JR. High molecular weight RNAs and small interfering RNAs induce systemic postranscriptional gene silencing in plants Proc Natl Acad Sci U S A Sep 3 2002 11981-11986 99
		1540	PARK, W., J. LI, R. SONG, J. MESSING and X. CHEN. CARPEL FACTORY, a Dicer homolog, and HEN1, a novel protein, act in microRNA metabolism in Arabidopsis thaliana Curr Biol Sep 3 2002 1484-1495 12
		1550	JIANG, M. and J. MILNER. Selective silencing of viral gene expression in HPV-positive human cervical carcinoma cells treated with siRNA, a primer of RNA interference Oncogene Sep 5 2002 6041-6048 21
		1560	MARTINEZ, J., A. PATKANIOWSKA, H. URLAUB, R. LUHRMANN and T. TUSCHL. Single-stranded antisense siRNAs guide target RNA cleavage in RNAi Cell Sep 6 2002 563-574 110
		1570	ALLSHIRE, R. Molecular biology. RNAi and heterochromatin--a hushed-up affair Science Sep 13 2002 1818-1819 297
		1580	REINHART, B. J. and D. P. BARTEL. Small RNAs correspond to centromere heterochromatic repeats Science Sep 13 2002 1831 297
DS		1590	VOLPE, T. A., C. KIDNER, I. M. HALL, G. TENG, S. I. GREWAL and R. A. MARTIENSSEN. Regulation of heterochromatic silencing and histone H3 lysine-9 methylation by RNAi Science Sep 13 2002 1833-1837 297

Examiner Signature: /Dana Shin/

Date Considered: 10/23/2006

U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials	Cite No#	NON PATENT LITERATURE DOCUMENTS Authors, Title, Journal, Date, Year, Pages, Volume
DS	1600	BAULCOMBE, D. DNA events. An RNA microcosm Science Sep 20 2002 2002-2003 297
	1610	LLAVE, C., Z. XIE, K. D. KASSCHAU and J. C. CARRINGTON. Cleavage of Scarecrow-like mRNA targets directed by a class of Arabidopsis miRNA Science Sep 20 2002 2053-2056 297
	1620	MOCHIZUKI, K., N. A. FINE, T. FUJISAWA and M. A. GOROVSKY. Analysis of a piwi-related gene implicates small RNAs in genome rearrangement in tetrahymena Cell Sep 20 2002 689-699 110
	1630	HUTVAGNER, G. and P. D. ZAMORE. A microRNA in a multiple-turnover RNAi enzyme complex Science Sep 20 2002 2056-2060 297
	1640	COBURN, G. A. and B. R. CULLEN. Potent and specific inhibition of human immunodeficiency virus type 1 replication by RNA interference J Virol Sep 2002 9225-9231 76
	1650	CAUDY, A. A., M. MYERS, G. J. HANNON and S. M. HAMMOND. Fragile X-related protein and VIG associate with the RNA interference machinery Genes Dev Oct 1 2002 2491-2496 16
	1660	ISHIZUKA, A., M. C. SIOMI and H. SIOMI. A Drosophila fragile X protein interacts with components of RNAi and ribosomal proteins Genes Dev Oct 1 2002 2497-2508 16
	1670	VOINNET, O. RNA silencing: small RNAs as ubiquitous regulators of gene expression Curr Opin Plant Biol Oct 2002 444-451 5
	1680	GOLDEN, T. A., S. E. SCHAUER, J. D. LANG, S. PIEN, A. R. MUSHEGIAN, U. GROSSNIKLAUS, D. W. MEINKE and A. RAY. SHORT INTEGUMENTS1/SUSPENSOR1/CARPEL FACTORY, a Dicer homolog, is a maternal effect gene required for embryo development in Arabidopsis Plant Physiol Oct 2002 808-822 130
	1690	MERKLE, I., M. J. VAN OOIJ, F. J. VAN KUPPEVELD, D. H. GLAUDEMANS, J. M. GALAMA, A. HENKE, R. ZELL and W. J. MELCHERS. Biological significance of a human enterovirus B-specific RNA element in the 3' nontranslated region J Virol Oct 2002 9900-9909 76
	1700	FROEYEN, M. and P. HERDEWIJN. RNA as a target for drug design, the example of Tat-TAR interaction Curr Top Med Chem Oct 2002 1123-1145 2
	1710	CARMELL, M. A., Z. XUAN, M. Q. ZHANG and G. J. HANNON. The Argonaute family: tentacles that reach into RNAi, developmental control, stem cell maintenance, and tumorigenesis Genes Dev Nov 1 2002 2733-2742 16
	1720	PROVOST, P., D. DISHART, J. DOUCET, D. FRENDWEY, B. SAMUELSSON and O. RADMARK. Ribonuclease activity and RNA binding of recombinant human Dicer Embo J Nov 1 2002 5864-5874 21
	1730	ZHANG, H., F. A. KOLB, V. BRONDANI, E. BILLY and W. FILIPOWICZ. Human Dicer preferentially cleaves dsRNAs at their termini without a requirement for ATP Embo J Nov 1 2002 5875-5885 21
	1740	MALLORY, A. C., B. J. REINHART, D. BARTEL, V. B. VANCE and L. H. BOWMAN. A viral suppressor of RNA silencing differentially regulates the accumulation of short interfering RNAs and micro-RNAs in tobacco Proc Natl Acad Sci U S A Nov 12 2002 15228-15233 99
	1750	GOTTESMAN, S. Stealth regulation: biological circuits with small RNA switches Genes Dev Nov 15 2002 2829-2842 16
	1760	CALIN, G. A., C. D. DUMITRU, M. SHIMIZU, R. BICHI, S. ZUPO, E. NOCH, H. ALDLER, S. RATTAN, M. KEATING, K. RAI, L. RASSENTI, T. KIPPS, M. NEGRINI, F. BULLRICH and C. M. CROCE. Frequent deletions and down-regulation of micro- RNA genes miR15 and miR16 at 13q14 in chronic lymphocytic leukemia Proc Natl Acad Sci U S A Nov 26 2002 15524-15529 99
DS	1770	GAUDILLIERE, B., Y. SHI and A. BONNI. RNA interference reveals a requirement for myocyte enhancer factor 2A in activity-dependent neuronal survival J Biol Chem Nov 29 2002 46442-46446 277

Examiner Signature: /Dana Shin/

Date Considered: 10/23/2006

U.S. Application No. 10/604,943  
 Filing Date August 28, 2003  
 First Inventor Itzhak Bentwich  
 Art Unit 1631  
 Examiner MILLER, MARINA I  
 Docket Number 050992.0300.CPUS07

### Information Disclosure Statement

Examiner Initials	Cite No#	Authors, Title, Journal, Date, Year, Pages, Volume
DS	1780	JONES, L. Revealing micro-RNAs in plants Trends Plant Sci Nov 2002 473-475 7
	1790	SCHAUER, S. E., S. E. JACOBSEN, D. W. MEINKE and A. RAY. DICER-LIKE1: blind men and elephants in Arabidopsis development Trends Plant Sci Nov 2002 487-491 7
	1800	OKAZAKI, Y., M. FURUNO, T. KASUKAWA, J. ADACHI, H. BONO, S. KONDO, et al. Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs Nature Dec 5 2002 563-573 420
	1810	DENNIS, C. Small RNAs: the genome's guiding hand? Nature Dec 19-26 2002 732 420
	1820	UCHIDA, N., S. HOSHINO, H. IMATAKA, N. SONENBERG and T. KATADA. A novel role of the mammalian GSPT/eRF3 associating with poly(A)-binding protein in Cap/Poly(A)-dependent translation J Biol Chem Dec 27 2002 50286-50292 277
	1830	HUTTENHOFER, A., J. BROSIUS and J. P. BACHELLERIE. RNomics: identification and function of small, non-messenger RNAs Curr Opin Chem Biol Dec 2002 835-843 6
	1840	WOOD, N. T. Unravelling the molecular basis of viral suppression of PTGS Trends Plant Sci 2002 384 7
	1850	COHEN, O., C. ERB, D. GINZBERG, Y. POLLAK, S. SEIDMAN, S. SHOHAM, R. YIRMIYA and H. SOREQ. Neuronal overexpression of "readthrough" acetylcholinesterase is associated with antisense-suppressible behavioral impairments Mol Psychiatry ***No date in pubmed*** 2002 874-885 7
	1860	MLOTSHWA, S., O. VOINET, M. F. METTE, M. MATZKE, H. VAUCHERET, S. W. DING, G. PRUSS and V. B. VANCE. RNA silencing and the mobile silencing signal Plant Cell ***No date in pubmed*** 2002 S289-301 14 Suppl
	1870	TANG, G., B. J. REINHART, D. P. BARTEL and P. D. ZAMORE. A biochemical framework for RNA silencing in plants Genes Dev Jan 1 2003 49-63 17
	1880	KAWASAKI, H. and K. TAIRA. Short hairpin type of dsRNAs that are controlled by tRNA(Val) promoter significantly induce RNAi-mediated gene silencing in the cytoplasm of human cells Nucleic Acids Res Jan 15 2003 700-707 31
	1890	ASHRAFI, K., F. Y. CHANG, J. L. WATTS, A. G. FRASER, R. S. KAMATH, J. AHRINGER and G. RUVKUN. Genome-wide RNAi analysis of Caenorhabditis elegans fat regulatory genes Nature Jan 16 2003 268-272 421
	1900	KAMATH, R. S., A. G. FRASER, Y. DONG, G. POULIN, R. DURBIN, M. GOTTA, A. KANAPIN, N. LE BOT, S. MORENO, M. SOHRMANN, D. P. WELCHMAN, P. ZIPPERLEN and J. AHRINGER. Systematic functional analysis of the Caenorhabditis elegans genome using RNAi Nature Jan 16 2003 231-237 421
	1910	TUSCHL, T. Functional genomics: RNA sets the standard Nature Jan 16 2003 220-221 421
	1930	SHI, Y. Mammalian RNAi for the masses Trends Genet Jan 2003 9-12 19
	1940	CERUTTI, H. RNA interference: traveling in the cell and gaining functions? Trends Genet Jan 2003 39-46 19
DS	1950	ZENG, Y. and B. R. CULLEN. Sequence requirements for micro RNA processing and function in human cells Rna Jan 2003 112-123 9
	<del>2000</del>	<del>KONFORTI, B. The news and you Nat Struct Biol 2003 147 10</del>
DS	2940	STEIN, T. D. and J. A. JOHNSON. Genetic programming by the proteolytic fragments of the amyloid precursor protein: somewhere between confusion and clarity Rev Neurosci ***no date in pubmed*** 2003 317-341 14
DS	2950	SZYMANSKI, M., M. Z. BARCISZEWSKA, M. ZYWICKI and J. BARCISZEWSKI. Noncoding RNA transcripts J Appl Genet ***NO DATEIN PUBMED*** 2003 1-19 44

Examiner Signature: /Dana Shin/

Date Considered: 10/23/2006